DECISION

SUPPLEMENT TO THE ENVIRONMENTAL ASSESSMENT: WHITE-TAILED DEER DAMAGE MANAGEMENT IN PENNSYLVANIA

I. INTRODUCTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program has prepared an Environmental Assessment (EA) to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage and threats associated with white-tailed deer (*Odocoileus virginianus*) to agricultural resources, property, natural resources, and human safety when requested in Pennsylvania (USDA 2003). The EA documents the need for deer damage management in the Commonwealth and assesses potential impacts on the human environment of five alternatives to address that need. After consideration of the analysis contained in the EA and review of public comments, a Decision and Finding of No Significant Impact (FONSI) for the EA was issued on September 24, 2003. The Decision and FONSI selected the proposed action alternative which implemented an integrated damage management program in Pennsylvania using multiple methods to adequately address the need to manage damage caused by deer.

II. PURPOSE

The supplement to the EA was prepared to examine potential environmental impacts of the proposed action alternative based on new information that has become available from research findings and data gathered since the issuance of the Decision and FONSI in 2003 along with new methods that have become available since the Decision for the EA was issued. In addition, the supplement communicates to the public the analysis of individual and cumulative impacts of the proposed action alternative since 2003 and documents the analyses of WS' deer damage management activities in Pennsylvania since the Decision/FONSI was issued in 2003 to ensure program activities remain within the impact parameters analyzed in the EA.

III. NEED FOR ACTION

The need for action is based on a need to manage deer damage to agricultural resources, natural resources, property, and to reduce threats to human safety. WS has received reports of or verified nearly $16 million in damages associated with deer in the Commonwealth since the EA was prepared. WS continues to receive requests for both operational assistance and technical assistance from people experiencing damage or threats of damage caused by deer. The need for action to manage deer damage remains as addressed in the EA. The need for action addressed in the EA remains applicable to the supplement to the EA. Requests for assistance associated with damage or threats of damage have been primarily associated with damage and threats to property.

IV. FRAMEWORK FOR DEER DAMAGE MANAGEMENT IN PENNSYLVANIA

The management of free-ranging deer in the Commonwealth is the responsibility of the Pennsylvania Game Commission (PGC). WS is the federal authority for the management of wildlife damage. WS continues to receive requests for both operational assistance and technical assistance from people experiencing damage or threats of damage caused by deer. Direct operational assistance would only be provided by WS when requested by a property owner or manager and only when a permit has been received by WS from the PGC or has been issued to the cooperator requesting assistance.

WS' Objectives

There were two objectives for deer damage management conducted by WS identified in the EA. Those objectives were to: (1) respond to requests for assistance with the appropriate action as determined by WS' personnel in the Commonwealth, applying the WS Decision Model (Slate et al. 1992, USDA 1997, USDA 2003) in consultation with the PGC and (2) prevent the take of non-targets during direct operational assistance where WS is directly involved with the deer damage management activities.

Relationship of the EA and the Supplement to Other Environmental Documents

The relationship of the EA and the supplement to other documents that address deer management were also discussed in the EA and the supplement including WS' programmatic Final Environmental Impact Statement (FEIS; USDA 1997), the EA developed by WS that evaluated activities to reduce deer damage for the City of Philadelphia, Fairmont Park Commission (USDA 2001), the FEIS developed by the National Park Service for the management of deer at Valley Forge National Historical Park (National Park Service 2009), and the management plan for deer populations in Pennsylvania (PGC 2009).

Decisions to be Made

Based on the scope of the EA, the decisions to be made would be: 1) should WS continue to conduct deer damage management to alleviate damage and threats in Pennsylvania, when requested, 2) should WS conduct disease surveillance and monitoring in the deer population when requested by the PGC, 3) should WS continue to implement an integrated wildlife damage management strategy, including technical assistance and direct operational assistance, to meet the need for deer damage management in the Commonwealth, 4) should WS continue to implement the standard operating procedures (SOPs) as addressed in the EA, 5) should WS attempt to implement one of the alternatives to an integrated damage management strategy as described in the EA, and 6) would continuing the proposed action result in adverse impacts to the environment requiring the preparation of an EIS based on activities conducted since the completion of the EA, based on activities associated with addressing an increasing number of requests for assistance, and/or based on new information available.

V. SCOPE OF ANALYSIS

The EA evaluates deer damage management under five alternatives to reduce threats to human safety and to resolve damage to property, natural resources, and agricultural resources wherever such management could be requested by a cooperator. The analyses in the EA would be intended to apply to any action taken by WS to alleviate damage or threats of damage associated with deer that may occur in any locale and at any time within the Commonwealth. The EA emphasizes major issues as they relate to specific areas; however, the issues addressed apply wherever deer damage and the resulting damage management activities would occur. The standard WS Decision Model (Slate et al. 1992, USDA 1997, USDA 2003) would be the site-specific procedure for individual actions conducted by WS in the Commonwealth. The supplement adds to the analysis in the EA and the 2003 Decision/FONSI. The information and analyses in the EA remain valid unless otherwise noted.

The PGC has jurisdiction over the management of free-ranging deer in the Commonwealth and has specialized expertise in identifying and quantifying potential adverse effects to the human environment from deer damage management activities. Deer can be harvested in the Commonwealth during regulated hunting seasons. In addition, the take of deer can occur when deemed appropriate by the PGC through the issuance of a permit which allow deer to be taken to alleviate damage. Therefore, any take involved with the alternatives to alleviate damage or threats of damage would only occur when a permit has been issued by the PGC and only at levels permitted.

The supplement to the EA along with the EA and the 2003 Decision/FONSI were made available for public review and comment through the publication of a legal notice announcing a minimum of a 30-day comment period. The legal notice was published in *The Patriot News* and posted on the APHIS website located at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml according to WS' public notification requirements (72 FR 13237-13238). A letter of availability was directly mailed to agencies, organizations, and individuals with probable interest in deer damage management in the Commonwealth. No comments were received during the public comment period for the supplement to the EA.

VI. AUTHORITY AND COMPLIANCE

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). The authority for management of wildlife species in Pennsylvania, including deer, is the responsibility of the PGC. The PGC collects and compiles information on deer population trends and take, and uses this information to manage deer populations. This information has been provided to WS to assist in the analysis of potential impacts of WS' activities conducted since the Decision for the EA was signed in 2003 and for the analyses of potential impacts from those activities addressed in the supplement to the EA.

The supplement to the EA along with this Decision ensures WS' actions comply with the National Environmental Policy Act (NEPA), with the Council on Environmental Quality (40 CFR 1500), and with APHIS' implementing regulations for the NEPA (7 CFR 372). All deer damage management activities, including disposal requirements, would be conducted consistent with federal, Commonwealth, and local laws, regulations, and policies, including WS' Directives.

VII. AFFECTED ENVIRONMENT

Deer can be found throughout the year across the Commonwealth where suitable habitat exists. Deer are capable of utilizing a variety of habitats including rural and urban habitats. Deer damage or threats of damage can occur statewide where ever deer occur. However, deer damage management would only be conducted by WS when requested by a landowner or manager and only on properties where a cooperative service agreement or other comparable document has been signed between WS and a cooperating entity. In addition, direct operational assistance would only be provided after a permit has been issued by the PGC for those activities, either to WS or to the cooperating entity.

WS has reviewed the affected environment during evaluations of program activities under the proposed action through monitoring reports and the supplement. The affected environment has not changed since the implementation of the proposed action and continues to be as addressed in the EA (USDA 2003).

VIII. ISSUES ANALYZED IN DETAIL

Issues related to wildlife damage management were initially identified and defined during the development of WS' programmatic FEIS (USDA 1997). Issues related to deer damage management in Pennsylvania were defined and preliminary alternatives were identified through consultation with the PGC. The EA was also made available to the public for review and comment through notices published in local media and through direct notification of interested parties.

Chapter 2 of the EA describes in detail the issues considered and evaluated in the EA (USDA 2003). The following issues were identified as important to the scope of the analysis (40 CFR 1508.25) with each alternative evaluated in the EA relative to the impacts on the major issues:

- Issue 1 - Effects on White-tailed Deer Populations
- Issue 2 - Effects on Plants and other Wildlife Species, including Threatened and Endangered Species
- Issue 3 - Effects on Human Health and Safety
- Issue 4 - Humaneness of Methods to be Used
- Issue 5 - Effects on Aesthetic Values
- Issue 6 - Effects on Regulated White-tailed Deer Hunting

Those issues identified during the development of the EA were evaluated in the supplement by each issue as those issues related to WS' activities conducted since the original Decision was signed in 2003. Each of those issues was also evaluated as those issues related to conducting the proposed action alternative as described in the supplement to the EA.

IX. ISSUES ADDRESSED BUT NOT IN DETAIL

In addition to those issues analyzed in detail, several additional issues were identified during the development of the EA but were not considered in detail. The rationale for the decision not to analyze those issues in detail has been discussed in the EA. WS has reviewed the issues not considered in detail as described in the EA and has determined that the analysis provided in the EA has not changed and is still appropriate.

X. ALTERNATIVES ANALYZED IN DETAIL

Five alternatives were developed to respond to the issues identified in Chapter 2 of the EA and to address the need for action discussed in Chapter 1 (USDA 2003). Chapter 4 in the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on the issues. Below is a summary of the alternatives analyzed in detail.

- Alternative 1 – No Deer Damage Management by WS
- Alternative 2 – Technical Assistance Only
- Alternative 3 – Lethal Deer Damage Management only by WS
- Alternative 4 – Non-lethal Deer Damage Management only by WS
- Alternative 5 – Integrated Deer Damage Management Program: No Action (Preferred Alternative)

The EA contains a detailed description and discussion of the alternatives and the effects of the alternatives on the issues identified. Appendix B of the EA provides a description of the methods that could be used or recommended by WS under each of the alternatives. The supplement to the EA provides additional discussion of methods available for use since the completion of the EA.

XI. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Additional alternatives were also considered to address the issues but were not analyzed in detail with the rationale discussed in the EA (USDA 2003). WS has reviewed the alternatives analyzed but not in detail and determined the analyses in the EA are still appropriate for those alternatives considered.

XII. WILDLIFE DAMAGE MANAGEMENT METHODS

Since the completion of the EA, trap monitors, Forward Looking Infrared (FLIR) devices, and night vision equipment have become available for use while conducting deer damage management activities. Those methods aid in the use of other methods or allow other methods to be applied more selectively and efficiently.

In addition, the reproductive inhibitor GonaCon™ has been registered with the Environmental Protection Agency to manage deer populations by limiting reproduction. GonaCon™ is registered as a restricted-use pesticide available for use by WS' personnel and personnel of a state wildlife management agency or persons under their authority. However, GonaCon™ is not currently registered for use in Pennsylvania. If GonaCon™ becomes registered in the Commonwealth and is approved for use by the PGC, further evaluation could occur pursuant to the NEPA.

XIII. STANDARD OPERATING PROCEDURES

The WS program in Pennsylvania uses many standard operating procedures and conducts work pursuant to WS' Directives. Standard operating procedures are discussed in detail in Chapter 5 of WS' programmatic FEIS (USDA 1997) and in Chapter 3 of the EA (USDA 2003). Those standard operating procedures would continue to be incorporated into activities conducted by WS when addressing deer damage and threats.

XIV. ENVIRONMENTAL CONSEQUENCES FOR ISSUES ANALYZED IN DETAIL

Chapter 4 of the EA analyzes the environmental consequences of each alternative in comparison to determine the extent of actual or potential impacts on those major issues identified in the EA. The proposed action/no action alternative serves as the baseline for the analysis and the comparison of expected impacts among the alternatives. The analysis also takes into consideration mandates, directives, and the procedures of WS and the PGC. The analyses in Chapter 4 of the EA indicate the potential impacts to the quality of the human environment would be similar across the alternatives.

Based on the analyses in the EA, the 2003 Decision determined the need for action and the issues identified in the EA were best addressed by selecting Alternative 5 and the implementation of the selected alternative would not significantly affect the quality of the human environment (USDA 2003). Between FY 2004 and FY 2010, WS has implemented a deer damage management program which responds to requests for assistance using an adaptive integrated methods approach as described under Alternative 5 in the EA. The supplement to the EA evaluates the implementation of Alternative 5 from FY 2004 through FY 2010 to ensure individual and cumulative activities conducted pursuant to the alternative continue to be within the impact parameters evaluated in the EA based on current information and methods. Potential impacts of Alternatives 1, 2, 3, and 4 on the human environment related to the major issues have not changed from those described in the EA.

The following resource values in Pennsylvania would be not expected to be significantly impacted by any of the alternatives based on the analyses in the EA and in the supplement to the EA: soils, geology, minerals, water quality/quantity, flood plains, wetlands, critical habitats (areas listed in threatened and endangered (T&E) species recovery plans), visual resources, air quality, prime and unique farmlands, aquatic resources, timber, and range. The activities proposed in the alternatives would have a negligible effect on atmospheric conditions including the global climate. Meaningful direct or indirect emissions of greenhouse gases would not occur as a result of any of the alternatives. Those alternatives would meet the requirements of applicable laws, regulations, and Executive Orders, including the Clean Air Act and Executive Order 13514.

The following issues were analyzed in detail in the supplement as they relate to those activities conducted by WS under the selected alternative in Pennsylvania from FY 2004 through FY 2010:

Issue 1 - Effects on White-tailed Deer Populations

A common issue when addressing damage caused by wildlife are the potential impacts of management actions on the population of target species. Under the proposed action, WS provides technical and direct damage assistance using methods described in Appendix B of the EA in an integrated approach in which all or a combination of methods may be employed to resolve a request for assistance. Methods available for use under the proposed action alternative are categorized into lethal and non-lethal methods. Non-lethal methods would generally be regarded as having minimal impacts on overall populations of wildlife since those species would be unharmed.

Of primary concern would be the magnitude of take on a species' population from the use of lethal methods. Lethal methods would be employed to remove an individual deer or those deer responsible for causing damage or the threat of damage but only after requests for such assistance have been received by WS. The use of lethal methods would therefore result in local population reductions in the area where damage or threats were occurring. The EA evaluated a lethal take of up to 1,000 deer annually by WS in Pennsylvania to alleviate damage and threats. If requested during a disease outbreak in the deer population, the EA evaluated the lethal take of up to 10,000 deer annually by WS (USDA 2003). Therefore, the potential impact to the statewide deer population in Pennsylvania associated with the removal of up to 10,000 deer annually by WS was analyzed in the EA (USDA 2003). Between FY 2004 and FY 2010, WS lethally removed a total of 6,174 deer in Pennsylvania to alleviate damage and threats with the highest level of take occurring in FY 2008 when 1,443 deer were taken. The take of deer by WS from FY 2004 through FY 2010 occurred within the impact parameters analyzed in the EA (USDA 2003) and the EA for the Fairmont Parks Commission (USDA 2001).

WS' programmatic FEIS determined using qualitative information (population trend indicators and harvest data) that if WS' deer kill is less than or equal to 33% of the total harvest, the magnitude would be considered low (USDA 1997). When take of deer has occurred by WS, the magnitude of take compared to the total known take from hunting and depredation permits has ranged from 0.1% to 0.4% between 2004 and 2010. Based on previous requests for assistance, the magnitude of WS' take of deer to resolve damage or threats has been low in Pennsylvania. The cumulative impact on the deer population from activities conducted by WS from FY 2004 through FY 2010 was negligible when compared to the total known mortality. Deer populations in the Commonwealth continue to show an overall stable population trend. Although some management units within the Commonwealth have shown declines in the number of deer, those declines have been the result of management strategies established by the PGC (PGC 2011). Based on the limited annual take occurring by WS compared to the statewide harvest of deer, the level of take by WS did not have adverse impacts on deer populations in Pennsylvania.

Deer Population Impact Analysis from the Proposed Supplement to the EA

After review of the number of requests for assistance to resolve and prevent deer damage in the Commonwealth received by WS since FY 2004 and in consultation with the PGC, WS anticipates the number of requests for assistance to increase in the future; therefore, WS anticipates the use of non-lethal and lethal methods to resolve deer damage and threats to increase. After review of previous activities conducted by WS and in anticipation of gradual increases in requests for lethal take, WS anticipates that future lethal take would not exceed 1,500 deer annually which is an increase of 500 deer above the level analyzed in the EA. In the case of a disease outbreak, WS could lethally take up to 10,000 white-tailed deer for sampling and/or to prevent further spread of diseases. Therefore, WS' total annual take would

not exceed 10,000 deer annually under the proposed action alternative which is the level of annual take analyzed in the EA (USDA 2003). Any take of deer by WS in Pennsylvania must be authorized and permitted by the PGC. Therefore, the number of deer taken annually by WS would only occur at levels authorized by the PGC.

Under a worst case scenario, a total of 10,000 deer could be taken by WS annually under the proposed action alternative. Since the worst case scenario would represent the highest level of annual take, the analyses in the supplement evaluated a take level of 10,000 deer annually to determine the maximum possible potential impact although take of 10,000 deer annually would be unlikely and would likely be less than 1,500 deer.

From 2004 through 2010, the highest deer harvest (409,320 deer) in Pennsylvania occurred in 2004 while the highest level of mortality from depredation permits (8,511 deer) occurred in 2005. If those highest take levels were combined and occurred during the same year, the total take of deer under a worst case scenario would be 417,831 deer taken in the Commonwealth during the annual hunting season and pursuant to depredation permits issued by the PGC. Under a worst case scenario, if WS' take had reached 10,000 deer, the combined take would have been 427,831 deer if the highest take levels during the hunting season and the highest level of take that has occurred under depredation permits are combined. Under this scenario, WS' take, if the take reached 10,000 deer to alleviate damage and for disease surveillance, would represent 2.3% of the total take of deer in the Commonwealth. The lowest take of deer during the annual hunting season from 2004 through 2010 occurred in 2009 when 308,920 deer were harvested in the Commonwealth. The lowest number of deer taken pursuant to depredation permits occurred in 2009 when 5,566 deer were taken to alleviate damage or threats of damage. Therefore, a total take of 314,486 deer would have occurred under this scenario using the lowest take levels of deer from 2004 through 2010. If WS' take had reached 10,000 deer, WS' take would have represented 3.1% of the total take that occurred using the lowest take levels from 2004 through 2010.

The current statewide deer population is unknown. As stated previously, WS' programmatic FEIS determined using qualitative information (population trend indicators and harvest data) that if WS' deer kill is less than or equal to 33% of the total harvest, the magnitude would be considered low (USDA 1997). Based on the best available information, if WS' take had reached 10,000 deer annually from 2004 through 2010, the take by WS would not have reached 33% of the total harvest of deer in the Commonwealth. Even during the lowest deer harvest level in the Commonwealth that occurred in 2009, if WS had lethally removed 10,000 deer, the take would have represented 3.1% of the total harvest of deer.

WS' deer damage management activities would be carried out under a depredation permit issued by the PGC to a property owner and/or manager or directly to WS to conducted deer damage management activities for a property owner and/or manager. All take by WS would continue to be reported to the PGC to ensure WS' activities have been incorporated into deer population objectives for the Commonwealth. Since deer can be taken to alleviate damage through the issuance of depredation permits by the PGC, those deer taken by WS would likely be removed by those persons experiencing damage or threats since they could obtain permits for the lethal take of deer. The permitting of all WS' take by the PGC ensures WS' take would meet the objectives established for the statewide deer population. Trap monitors, FLIR devices, and night vision equipment aid in the use of other methods or allow other methods to be applied more selectively and efficiently. Since those methods would be components of other methods, there would be no adverse effects on the population of deer from the use of those methods.

Issue 2 - Effects on Plants and other Wildlife Species, including Threatened and Endangered Species

While every precaution would be taken to safeguard against taking non-targets during operational use of methods and techniques for resolving damage and reducing threats caused by wildlife, the use of such methods can result in the incidental take of unintended species. Those occurrences would be minimal and should not affect the overall populations of any species. Since FY 2004, no non-target wildlife has been taken by WS during deer damage management activities in Pennsylvania. No T&E species were taken or adversely affected by WS' actions. No adverse effects to non-targets were observed or reported to WS during deer damage management activities conducted from FY 2004 through FY 2010. WS would continue to monitor the take of non-target species to ensure program activities or methodologies used in deer damage management do not adversely impact non-targets.

Analysis of the Proposed Supplement to the EA on Non-targets

The increased take of deer proposed in the supplement to the EA would be expected to also increase the likelihood that the number of non-targets taken on an annual basis would increase. Deer have been taken previously through the use of firearms and live-traps followed by euthanasia. Firearms would be essentially selective for target species since identification of the target occurs prior to application. Live traps and other live-capture methods would also be selective for target species. Live traps would be baited using a bait source that is preferred by deer which can limit the attractiveness of bait to non-targets. Live traps also allow for any non-target live-captured to be released unharmed at the site of capture. Other live-capture methods (*e.g.*, drop nets, rocket nets, and cannon nets) require activation by personnel present at the site, which ensures that non-targets would not be captured during application or could be released on site if capture occurs. Immobilizing drugs discussed in the EA would be applied directly to target individuals through hand injection or through darts fired from dart guns. Therefore, identification of the target occurs prior to application so non-target capture can be avoided. Based on previous activities and the selectivity of methods employed by WS, the take of other wildlife species would be extremely low to non-existent.

Since the completion of the EA, a review of T&E species listed by the USFWS showed that additional listings of T&E species have occurred. Based on the review of available information in the supplement to the EA, WS determined the proposed action alternative would have no effect on those species listed in the Commonwealth since the completion of the EA in 2003. In addition, the use of trap monitors, night vision equipment, and FLIR equipment would have no effect on any T&E species listed within the Commonwealth since those methods would be components of other methods. In addition, WS' determination addressed in the EA would continue to be appropriate for those T&E species addressed in the EA (USDA 2003).

Issue 3 - Effects on Human Health and Safety

WS' implementation of the proposed action from FY 2004 through FY 2010 did not result in any adverse impacts to human or pet safety. The potential impacts of program activities on human health and safety have not changed from those analyzed in the EA.

Analysis of the Proposed Supplement to the EA on Human Safety

Night vision equipment, FLIR equipment, and trap monitors would be employed as components of other methods that when employed, allow those methods to be employed more efficiently and effectively. In addition, night vision equipment and FLIR equipment would most often be employed with the use of a firearm which allows deer damage management activities to be conducted at night when human activity

tends to be lowest; therefore, the use of night vision equipment and FLIR equipment would not adversely affect human safety but potentially could further reduce risks. Trap monitors would be attached directly to traps and would not pose a threat to human safety. Impacts of the proposed action alternative on this issue would be expected to remain insignificant.

Issue 4 - Humaneness of methods to be used

The issue of humaneness was also analyzed in detail in relationship to the alternatives in the EA. Since many methods addressed in Appendix B of the EA would be available under all the alternatives, the issue of method humaneness would be similar for those methods across all the alternatives. WS' personnel would be experienced and professional in their use of management methods. When employing methods to resolve damage to resources or threats to human safety, methods would be applied as humanely as possible. Methods used in deer management activities in Pennsylvania since the completion of the EA and their potential impacts on humaneness and animal welfare have not changed from those analyzed in the EA.

Analysis of the Proposed Supplement to the EA on Humaneness

Trap monitoring devices would be employed when applicable that indicate when a trap as been activated. Trap monitoring devices would allow personnel to prioritize trap checks and decrease the amount of time required to check traps which decreases the amount of time captured deer would be restrained. By reducing the amount of time deer would be restrained, pain and stress can be minimized which would reduce the distress of captured deer. Therefore, the use of trap monitoring devices proposed under the supplement would likely result in traps being used more humanely. Additionally, the use of FLIR and night vision equipment to remove deer may improve the perceived humanness of killing deer using firearms since those components would aid in identifying target species and allowing for more accurate shot placements when using firearms.

Issue 5 - Effects on Aesthetic Values

The EA concluded the effects on aesthetics would be variable depending on the damage situation, stakeholders' values towards deer, and their compassion for those persons who are experiencing damage from deer. Program activities and their potential impacts on aesthetics have not changed from those analyzed in the EA. When compared to the estimated deer population in Pennsylvania and when compared to the total known deer taken, WS' take has been minimal with the magnitude of take being low. Deer populations remain high and deer would be readily available for viewing if a reasonable effort has been made to locate deer in Pennsylvania. WS' take of deer in Pennsylvania has not adversely affected the aesthetic value of deer.

Analysis of the Proposed Supplement to the EA on the Aesthetic-value of Deer

Night vision and FLIR equipment allow WS to address deer at night or during low light conditions when deer would be the most active which allows WS to more specifically identify those deer causing damage or posing a threat of damage. If the ability of WS to identify those deer causing damage or posing a threat of damage is enhanced through the use of night vision and FLIR equipment, the number of deer addressed by WS to resolve requests for assistance would likely be lower which further reduces concerns about the potential impacts of deer removal on aesthetics.

Issue 6 - Effects on Regulated White-tailed Deer Hunting

WS' annual take of deer has not exceeded 0.4% of the deer harvested in Pennsylvania from FY 2004 through FY 2010. WS' activities would be coordinated with the PGC to ensure WS' annual take does not exceed a level where a decline in the deer population would occur due to cumulative impacts from harvest, damage management activities, and other sources of mortality. WS' limited take of deer in Pennsylvania would not occur at a magnitude that would adversely affect the ability of those persons interested to harvest deer in the Commonwealth.

XV. SUMMARY OF CUMULATIVE IMPACTS

No cumulative adverse effects have been identified for deer as a result of program activities implemented over time based on analyses contained in the EA, from monitoring reports, or from analyses contained in the supplement. WS continues to implement an integrated damage management program that adapts to the damage situation and the species involved with causing the damage. WS only targets deer causing damage and only after a request for assistance has been received.

Since the completion of the EA, the population of deer continues to show a relatively stable trend in the Commonwealth which provides some indication that WS' activities have not cumulatively impacted populations. From FY 2004 through FY 2010, 6,174 deer have been taken by WS to alleviate damage in the Commonwealth. From 2004 through 2010, hunters have harvested over 2.4 million deer during the regulated hunting season in the Commonwealth. In addition, deer may be taken to alleviate damage and to meet management objectives of landowners in the Commonwealth. A total of 41,471 deer have been lethally taken in the Commonwealth from 2004 through 2009 under permits issued by the PGC. WS' annual take of deer has averaged 0.3% of the reported annual harvest of deer in the Commonwealth with the highest level occurring in 2008 which represented 0.4% of the reported harvest in 2008. WS' take has been and would continue to be a small component of the overall harvest of deer which would be monitored and adjusted by the PGC to meet management objectives for statewide deer populations.

The methods described in Appendix B of the EA all have a high level of selectivity and can be employed using standard operating procedures to ensure minimal impacts to non-targets species. No non-targets were taken by WS during deer damage management activities from FY 2004 through FY 2010. Based on the methods available to resolve deer damage and/or threats, WS does not anticipate the number of non-targets taken to reach a magnitude where declines in those species' populations would occur. Therefore, take of non-targets would not cumulatively impact the populations of non-target species.

WS has received no reports or documented any adverse effects to human safety from WS' deer damage management activities conducted from FY 2004 through FY 2010. Personnel employing methods would continue to be trained to be proficient in the use of those methods to ensure the safety of the applicator and to the public. Based on the use patterns of methods, those methods would not cumulatively impact human safety. WS employs methods as humanely as possible by applying measures to minimize pain and that allow wildlife captured to be addressed in a timely manner to minimize distress. Through the establishment of WS Directives and standard operating procedures that guide WS in the use of methods to address damage and threats associated with deer in the Commonwealth, the cumulative impacts on the issue of method humaneness would be minimal.

Deer population objectives would be established and enforced by the PGC through the regulating of deer take during the statewide hunting season and through the issuance of permits after consideration of other known mortality factors. Therefore, WS has no direct impact on the status of the deer population since all take by WS occurs at the discretion of the PGC. Since those persons seeking assistance could remove deer from areas where damage has been occurring through permits issued by the PGC, WS' involvement

would have no effect on the aesthetic value of deer in the area where damage was occurring. When a permit has been issued by the PGC to a property owner and/or manager that was experiencing damage caused by deer, the removal of deer under that permit would likely occur whether WS was involved with taking the deer or not.

XV. DECISION AND RATIONALE

Based on the analyses of the alternatives developed to address those issues in the EA, including individual and cumulative impacts of those alternatives, the following decision has been reached:

Decision

The information and analyses in the supplement to the EA have been carefully reviewed, including the analyses in the EA, the comments received during the public involvement processes, and the 2003 Decision/FONSI. After review and consideration, the proposed action, based on the analyses in the supplement to the EA, has been determined to be environmentally acceptable by addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA and the supplement to the EA adequately address the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or to the quality of the human environment would likely occur from the proposed activities addressed in the EA or the supplement to the EA. Therefore, the analysis in the EA, as supplemented, remains valid and does not warrant the completion of an EIS.

Based on analyses in the EA and the supplement to the EA, the issues identified would be best addressed by continuing the proposed action, as supplemented, and applying the associated standard operating procedures discussed in Chapter 3 of the EA. The proposed action, as addressed in the supplement, successfully addresses (1) deer damage management using a combination of the most effective methods and does not adversely impact the environment, property, human safety, and/or non-target species, including threatened and endangered species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues have been considered. Further analysis would be triggered if changes occur that broaden the scope of deer damage management activities in the Commonwealth, that affect the natural or human environment, or from the issuance of new environmental regulations.

Finding Of No Significant Impact

Based on the analyses provided in the EA, the 2003 Decision/FONSI, the monitoring reports, and the supplement, there continues to be no indications that WS' activities have had or would have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an EIS should not be prepared. This determination has been based on the following factors:

1. Deer damage management as conducted by WS in the Commonwealth would not be regional or national in scope.

2. Based on the analyses in the EA and in the supplement, the proposed action would pose minimal risk to public health and safety. Risks to the public were determined to be low in a formal risk assessment that evaluated many of the methods available to manage deer damage (USDA 1997).

3. The proposed action, as supplemented, would continue to have no significant impact on unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas. WS' standard operating procedures and adherence to laws and regulations that govern impacts on elements of the human environment would assure that significant adverse impacts would be avoided.

4. The effects on the quality of the human environment would not be highly controversial. Although there may be opposition to killing wildlife, this action would not be controversial in relation to size, nature, or effects. Based on consultations with the PGC, the proposed action, as supplemented, would not cause a controversial disagreement among the appropriate resource professionals.

5. Based on the analysis documented in the EA, the supplement to the EA, and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities would not highly uncertain and do not involve unique or unknown risks.

6. The proposed action, as supplemented, would not establish a precedent for future actions. This action would not set a precedent for future actions that may be implemented or planned within the Commonwealth.

7. No significant cumulative effects were identified through the EA and the supplement.

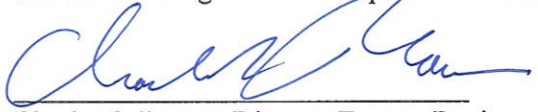
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.

9. WS determined that the proposed action would not result in any adverse effects on state or federally-listed threatened or endangered species for those species addressed in the EA. The supplement to the EA determined that activities conducted pursuant to the EA would continue to have no effect on those species listed in the Commonwealth since the completion of the EA.

10. The proposed action has been and would continue to be in compliance with all applicable federal, Commonwealth, and local laws.

Rationale

The rationale for this decision was based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations would be that: 1) deer damage management would only be conducted by WS at the request of landowners/managers and only after a permit has been issued by the PGC, 2) management actions would be consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in Pennsylvania would continue to provide effective and practical technical assistance and direct management techniques that reduce damage.



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Charles S. Brown, Director-Eastern Region
USDA/APHIS/WS
Raleigh, North Carolina

Date

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